

REMARKS

This is a full and timely response to the outstanding Advisory Action mailed March 27, 2006 and the final Office Action mailed on December 28, 2005. Through this response, claims 1, 11, and 21 have been amended. Reconsideration and allowance of the application and pending claims 1-33 are respectfully requested.

I. Examiner Interview Summary

The undersigned wishes to thank Examiners Ms. Linda Wong and Mr. Dac Ha for providing an opportunity to discuss the merits of various aspects of the claims in a telephone interview between the Examiners and Applicants' representative, David Rodack (Registration number 47,034) on April 26, 2006. The subject matter of the interview was directed to questions pertaining to the limitations, "wherein processing the first baseband signal and the second baseband signal comprises selectively filtering and selectively DC-offset correcting the first and second baseband signal," found in claims 1, 11, and 21. In particular, the questions posed were part of a pre-interview email presented to Examiner Wong on April 25, which is reproduced in relevant part below as follows:

I. Summary

In the final OA dated 12/28/2005, language added to independent claims 1, 11, and 21 in the response (dated 9/22/05) that prompted the final OA were rejected under 112(1). The language added is the following:

wherein processing the first baseband signal and the second baseband signal comprises selectively filtering and selectively DC-offset correcting the first and second baseband signal

(a) The final OA provided on page 2, section 2 that "the examiner cannot determine the added limitations to claim 1, 11 and 21 due to the lack of further description in the specification...

(b) On pages 2-3 of the final OA, the following is asserted: "There is no show of an optional filter and DC correction or a selective or alternative path showing the next process of implementation if the DC offset correction and filter is not performed."

(c) Significantly, page 3, bottom paragraph provides as follows: The limitations can read on the DC-offset and filters having switchable bandwidths as stated in the specification, however, the recited limitations does not recite a selective or switchable bandwidth, thus such a description does not effectively explain the limitations of "selectively filter[ing] and DC-offset correction."

(d) In the Advisory Action (AA) dated 3/27/06, it is explained that "the examiner interprets the new limitations "...processing the first baseband signal and the second baseband signal comprises selectively filtering and selectively DC-offset correcting the first and second baseband signal" as the processing the baseband components comprises an selective or optional filter and DC offset correcting. The baseband component would either filter and/or DC offset correct or not perform one or both of these functionalities."

II. Questions:

(A) Do you interpret the language underlined above to require an OR relation or an AND relation (i.e., filtering or correcting, or filtering and correcting)?

(B) Do you agree, especially based on the comments reproduced in I(c) above, that both switchable bandwidths for filtering and DC offset correcting are supported in the specification?

(C) Do you agree generally that by having a switchable bandwidth, a specific band can be selected?

(D) Is your opinion of the 112(1) problem that the specific term "selective" is not found in the specification, and thus your interpretation is that selective can mean optional or occasional, which is allegedly not supported in the specification?

Examiner Wong's response to the questions are as follows: with regard to Question (A), Examiner Wong's response is "and." With regard to Question (B), Examiner Wong's response is "both." With regard to Question (C), Examiner Wong's response is "yes." With regard to Question (D), Examiner Wong's response is that "selectively" is such broad language that it can be interpreted as optionally performing the functions of filtering and DC-offset correcting, which Examiner Wong believes is not supported in the specification.

Additional discussion was directed to suggested language to circumvent the 35 USC 112 rejection, which Examiner Ha suggested elaborating on the selectable bandwidth aspect. Also, Applicants' representative pointed out that he believed the "optional" interpretation was not supported by the specification, but that the specific activity and effect definition provided by Webster's On-line dictionary in the last response for the term selective was consistent with the specification. Examiner Wong disagreed.

Applicants' representative indicated that he would require further consultation on this matter.

II. Claim Rejections - 35 U.S.C. § 112, First Paragraph

Claims 1, 11, and 21 have been rejected under 35 U.S.C. § 112, first paragraph, for the objections cited in the Advisory and final Office Action against Applicants' specification. Although Applicants do not agree that the rejection is warranted in view of the ordinary meaning ascribed to the term selective and the described embodiments in the application, in the interest of facilitating allowance of the application, Applicants have

amended the claim language to include bandwidth selectable features to the independent claims as suggested in the Examiner interview.

Thus, in view of these amendments, Applicants respectfully submit that claims comport with 35 U.S.C. § 112, first paragraph and respectfully request that the rejection under 35 U.S.C. § 112, first paragraph, be withdrawn.

III. Claim Rejections - 35 U.S.C. § 102(b) or 35 U.S.C. § 103(a)

A. Statement of the Rejection

Claims 1, 2, 5, 8, 11, 14, 16, 20-22, 25, 27 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over *Isberg et al.* (“*Isberg*,” U.S. Pat. No. 6,029,052). Applicants respectfully traverse these rejections. Applicants address the claim rejection under Section 102 and omit addressing the arguments made under Section 103 without any admission, implied or otherwise, since it appears that the final Office Action is asserting the 102 rejection based on a first interpretation (“the system selectively chooses a band or type of communication mode”), and asserting Section 103 based on a second interpretation (“filtering and correcting DC-offsets occasionally or selectively”). As Applicants respectfully submit that the second interpretation is erroneous, as explained previously, Applicants address the arguments pertaining to 35 U.S.C. § 102(b) as applied to the first interpretation. Further, although independent claims 1, 11, and 21 are listed under the final Office Action 102(b) rejection, claims 11 and 21 are not specifically addressed. Applicants assume that the final Office Action is using the arguments presented for claim 1 to claims 11 and 21 also.

B. Discussion of the Rejection

It is axiomatic that “[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration.” *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983)(emphasis added). Therefore, every claimed feature of the claimed invention must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. § 102(b).

In the present case, not every feature of the claimed invention is represented in the *Isberg* reference.

Independent Claim 1

Claim 1 recites (with emphasis added):

1. A method for receiving signals based on a plurality of systems, the method comprising:
 - converting a first signal based on a first system to a first baseband signal;
 - converting a second signal based on a second system to a second baseband signal;
 - processing the first baseband signal using baseband components;
 - and
 - processing the second baseband signal using the baseband components, ***wherein processing the first baseband signal and the second baseband signal comprises selectively filtering and selectively DC-offset correcting the first and second baseband signals, wherein selectively filtering and selectively DC-offset correcting comprises selecting different filtering bandwidths and different DC-offset correcting bandwidths based on which system baseband signal is to be processed.***

Applicants respectfully submit that *Isberg* does not disclose at least the emphasized claim features. On page 4, the final Office Action asserts that the above-mentioned claim features are found in *Isberg* by virtue of a bandsplitter for selecting a band mode. Applicants disagree, since there is no mention of ***selectively DC-offset correcting*** found in *Isberg*. In

fact, Col. 3, lines 52 and 53 provide for conventional baseband processing circuitry in *Isberg*. None of the cited references disclose *selectively DC-offset correcting*, and thus, Applicants respectfully request that the rejection to independent claim 1 be withdrawn.

Because independent claim 1 is allowable over *Isberg*, dependent claims 2-10 are allowable as a matter of law for at least the reason that the dependent claims 2-10 contain all elements of their respective base claim. See, e.g., *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

Independent Claim 11

Claim 11 recites (with emphasis added):

11. A multi-mode receiver system for processing signals based on a plurality of systems, comprising:

a baseband section configured to process a first baseband signal based on a first system using baseband components, wherein the baseband section is further configured to process a second baseband signal based on a second system using the baseband components, ***wherein the baseband components comprise bandwidth-switchable low-pass filters and bandwidth-switchable DC-offset correction elements.***

Applicants respectfully submit that *Isberg* does not disclose at least the emphasized claim features. On page 4, the final Office Action asserts that the above-mentioned claim features are found in *Isberg* by virtue of a bandsplitter for selecting a band mode. Applicants disagree, since there is no mention of ***bandwidth-switchable DC-offset correction elements*** found in *Isberg*. Since none of the cited references disclose ***bandwidth-switchable DC-offset correction elements***, Applicants respectfully request that the rejection to independent claim 11 be withdrawn.

Because independent claim 11 is allowable over *Isberg*, dependent claims 12-20 are allowable as a matter of law.

Independent Claim 21

Claim 21 recites (with emphasis added):

21. A transceiver, comprising:
means for transmitting signals;
means for receiving signals, wherein the means for receiving includes pre-converting processing means;
means for converting a first signal based on a first system to a first baseband signal;
means for converting a second signal based on a second system to a second baseband signal; and
means for processing the first baseband signal, wherein the means for processing the first baseband signal is used for processing the second baseband signal, ***wherein the means for processing the first baseband signal comprises means for selectively filtering and means for selectively DC-offset correcting the first and second baseband signals, wherein the means for selectively filtering and the means for selectively DC-offset correcting comprises means for selecting different filtering bandwidths and means for selecting different DC-offset correcting bandwidths based on which system baseband signal is to be processed.***

Applicants respectfully submit that *Isberg* does not disclose at least the emphasized claim features. At least since there is no mention of ***means for selectively DC-offset correcting*** found in *Isberg*, or any of the cited references, Applicants respectfully request that the rejection to independent claim 21 be withdrawn.

Because independent claim 21 is allowable over *Isberg*, dependent claims 22-27 are allowable as a matter of law.

Due to the shortcomings of the *Isberg* reference described in the foregoing, Applicants respectfully assert that *Isberg* does not anticipate Applicants' claims. Therefore, Applicants respectfully request that the rejection of these claims be withdrawn.

IV. Claim Rejections - 35 U.S.C. § 103(a)

A. Statement of the Rejection

Claims 3, 4, 6, 7, 9, 10, 15, 17, 18, 19, 23, 24, 26 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Isberg* in view of *Peterzell et al.* (“*Peterzell*,” U.S. Pat. No. 6,694,129B2). Claims 12 and 13 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Isberg* in view of *Robinett* (“*Robinett*,” U.S. Pub. No. 20020193108). Claims 28-33 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Isberg* in view of *Peterzell*. Applicants respectfully traverse these rejections.

B. Discussion of the Rejection

As has been acknowledged by the Court of Appeals for the Federal Circuit, the U.S. Patent and Trademark Office (“USPTO”) has the burden under section 103 to establish a *prima facie* case of obviousness by showing some objective teaching in the prior art or generally available knowledge of one of ordinary skill in the art that would lead that individual to the claimed invention. *See In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The Manual of Patent Examining Procedure (MPEP) section 2143 discusses the requirements of a *prima facie* case for obviousness. That section provides as follows:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teaching. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make

the claimed combination and reasonable expectation of success must be found in the prior art, and not based on applicant's disclosure.

In the present case, Applicants respectfully submit that a *prima facie* case for obviousness has not been established.

Dependent Claims 3, 4, 6, 7, 9, 10, 15, 17, 18, 19, 23, 24, and 26

Isberg does not disclose, teach, or suggest at least the above mentioned emphasized features of independent claims 1, 11, and 21. It is respectfully submitted that *Peterzell* does not remedy these deficiencies. Since dependent claims 3, 4, 6, 7, 9, 10, 15, 17, 18, 19, 23, 24, and 26 inherit the limitations of the respective independent claims 1, 11, and 21, Applicants respectfully submit that *Isberg* and *Peterzell* fail to disclose, teach, or suggest the features of claims 3, 4, 6, 7, 9, 10, 15, 17, 18, 19, 23, 24, and 26. Thus, Applicants respectfully request that the rejection to these claims be withdrawn.

Additionally, the final Office Action alleges on page 7 with regard to claim 9 that “it is inherent that the sampling rates found in the baseband processor would vary to accommodate the Nyquist theorem.” Applicants respectfully disagree with this inherency argument. According to MPEP 2112, “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” (emphasis not added) There is no mention in either *Isberg* or *Peterzell* about varying the sampling rates (*i.e.*, a baseband component having a first and second sampling rate). In *Peterzell*, col. 8, lines 45-57 provide as follows:

FIG. 5 depicts one RF signal path including one duplexer 312, one LNA 320 and one BPF 330. However, multiple RF signal paths may be included

in receiver 200. Each signal path may correspond to one or more particular operating frequency bands of receiver 200. For instance, receiver 200 may include respective Cellular, PCS, IMT, and GSM signal paths. Each RF path may include, as needed, a duplexer, switch, and/or bandpass filter, a LNA, a BPF, and I and Q mixers. Additionally, simultaneous GPS reception while operating with other modes may require separate LO generation, baseband amplifiers, analog low-pass filters, analog-to-digital converters, I/Q digital processing, and demodulation.

Thus, it appears that separate paths may need to be provided to accommodate different sampling requirements, and thus the alleged inherency does not necessarily follow. Thus, applicants respectfully traverse this finding of inherency and request that the rejection on these grounds be withdrawn.

Dependent Claims 12 and 13

Isberg does not disclose, teach, or suggest at least the above mentioned emphasized features of independent claim 11. It is respectfully submitted that *Peterzell* does not remedy these deficiencies. Since dependent claims 12 and 13 inherit the limitations of independent claim 11, Applicants respectfully submit that *Isberg* and *Peterzell* fail to disclose, teach, or suggest the features of claims 12 and 13. Thus, Applicants respectfully request that the rejection to these claims be withdrawn.

Independent Claim 28 and Dependent Claims 29-33

As noted in Applicants' response to the final Office Action, Applicants respectfully request that the fact that the *Goldsmith* reference is not a proper anticipatory reference be addressed in the next action. It is asserted in the final Office Action (Pages 8 and 9) that *Isberg* "does not disclose a digital-broadcast system that shares the common baseband processor," and that *Peterzell* "does not explicitly disclose processing digital broadcasted signals." However, the final Office Action then submits a non-patent

publication document dated 2004 to apparently remedy the deficiencies of *Peterzell* and *Isberg*. Of course, the non-patent publication document is an improper anticipatory reference as it does not pre-date the filing date of Applicants' disclosure. Thus, because *Peterzell* and *Isberg* fail to disclose, teach, or suggest all of the claimed limitations of independent claim 28, Applicants respectfully request that the rejection be withdrawn.

Because independent claim 28 is allowable over *Isberg*, dependent claims 29-33 are allowable as a matter of law.

Additionally, the final Office Action alleges with regard to claim 30 that "since each mode uses a different frequency, it would be inherent that the bandwidths use to process each mode must change. Applicants disagree, and respectfully traverse this finding of inherency. As pointed out in the discussion pertaining to claims 9 and 18, one possibility for processing would be to add signal paths. Nothing in *Isberg* (or *Peterzell*) discusses or teaches the switchable bandwidths of a DC-correction element as alleged by the final Office Action. In fact, it is pointed out in *Isberg* that *Isberg*'s system employs "conventional baseband processing" (col. 3, lines 50-53). Thus, Applicants respectfully request that the rejection of dependent claim 30 be withdrawn.

Further, with regard to dependent claims 32 and 33, inherency is again alleged with regard to varying sampling rates. As discussed in association with claims 9 and 18, Applicants respectfully traverse this finding of inherency since separate signal paths may be employed. Thus, applicants respectfully request that the rejection to claims 32 and 33 be withdrawn.

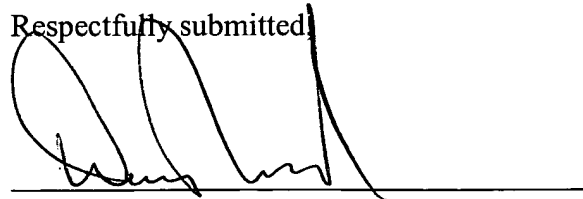
In summary, it is Applicants' position that a *prima facie* for obviousness has not been made against Applicants' claims. Therefore, it is respectfully submitted that each of

these claims is patentable over the art of record and that the rejection of these claims should be withdrawn.

CONCLUSION

Applicants respectfully submit that Applicants' pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. Any other statements in the Office Actions that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'David Rodack', is written over a horizontal line.

David Rodack
Registration No. 47,034

THOMAS, KAYDEN,
HORSTEMEYER & RISLEY, L.L.P.
Suite 1750
100 Galleria Parkway N.W.
Atlanta, Georgia 30339
(770) 933-9500